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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : DIETHANOLAMINE LR

Product code : 14145

Identification of the product : DIETHANOLAMINE LR

CAS No : 111-42-2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet Company identification : MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor,

Mumbai – 400 002 (INDIA)

Tel:+91 22 4066 8111, 2205 7772 . Fax: +91 22 2203 4442.

Email: info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm)

2. Hazards identification –DSD

2.1. Classification of the substance or mixture

Acute toxicity, (Category 4)

Skin irritation, (Category 2)

H302: Harmful if swallowed.

H315: Causes skin irritation.

Serious eye damage, (Category 1)

H318: Causes serious eye damage.

Reproductive toxicity (Category 2)

H361fd: Suspected of damaging ferti

Reproductive toxicity, (Category 2) H361fd: Suspected of damaging fertility.

Suspected of damaging the unborn child.

Specific target organ toxicity – H373: May cause damage to organs through repeated exposure, (Category 2), prolonged or repeated exposure if swallowed.

Kidney, Liver, Blood

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s): Xn: Harmful



R Phrase(s): R22 : Harmful if swallowed.

R38 : Irritating to skin.

R41 : Risk of serious damage to eyes.

R48/22 : Harmful : danger of serious damage to health by prolonged exposure if

swallowed.

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S Phrase(s): S2 : Keep out of the reach of children.

: In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

: If swallowed seek medical advice immediately and show this container or label.

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words : Danger

Hazard statements:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H373 May cause damage to organs (Kidney, Liver, Blood) through prolonged or

repeated exposure if swallowed.

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard Statements none

2.3. Other hazards: This substance/mixture contains no components considered to be either persistent,

bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB)

at levels of 0.1% or higher.

3. Composition/information on ingredients

3.1 Substances

Synonyms: Bis(2-hydroxyethyl)amine 2,2'-Iminodiethano

Formula : $C_4H_{11}NO_2$ Molecular weight : 105.14 g/mol CAS-No. : 111-42-2

No components need to be disclosed according to the applicable regulations.

4. First aid measures

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4.1. Description of first aid measures

If inhaled

After inhalation: fresh air. In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3. Indication of any immediate medical attention and special treatment needed

No data available

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensur adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2. Environmental precautions

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Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4. Reference to other sections

For disposal see section 13.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection.

Wash hands and face after working with substance.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Air sensitive.

Storage class

Storage class (TRGS 510): 11: Non Combustible Solids

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

Respiratory protection : Wear approved mask. Hand protection : Wear protective gloves.

Skin protection : Wear suitable protective clothing.
Eye protection : Chemical goggles or safety glasses.
Others : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits: No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid

Color colorless, light yellow

Odor ammoniacal

Melting point/range: 27 °C - dec.

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point/freezing point

Initial boiling point 217 °C at 200 hPa

and boiling range

Flammability (solid, gas) No data available

Upper/lower Upper explosion limit: 10.6 %(V) flammability or Lower explosion limit: 1.6 %(V)

explosive limits

Flash point 138 °C - closed cup

Autoignition temperature 355 °C

Decomposition temperature No data available

pH 11.0 - 12 at 105 g/l at 25 °C

Viscosity, kinematic: No data available Viscosity, dynamic: No data available

Water solubility 105 g/l at 20 °C - completely soluble

Partition coefficient:

n-octanol/water No data available

Vapor pressure 1 hPa at 108 °C - OECD Test Guideline 104

Density

Relative density

Relative vapor density

Particle characteristics

Explosive properties

1.097 g/cm3 at 20 °C

No data available

No data available

No data available

Oxidizing properties None

9.2. Other information

Dissociation constant $8.99 \text{ at } 25 \text{ }^{\circ}\text{C}$ Relative vapor density 3.63 - (Air = 1.0)

10. Stability and reactivity

10.1. Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2. Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) . Absorbs carbon dioxide (CO2) from air.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Strong heating.

10.5. Incompatible materials

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bronze, Copper, Copper alloys, brass, Zinc, zinc alloys, Strong oxidizing agents

10.6. Hazardous decomposition products

In the event of fire: see section 5

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed

Skin corrosion/irritation : Causes skin irritation. pH: 11 - 12 at 105 g/l at 25 °C Serious eye damage/irritation : Causes serious eye damage. pH: 11 - 12 at 105 g/l at 25 °C

Respiratory or skin sensitisation
Germ cell mutagenicity
: Not classified
Carcinogenicity
: Not classified
Reproductive toxicity
: Not classified
STOT-single exposure
: Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated

exposure.

Aspiration hazard : Not classified

12. Ecological information

12.1. Toxicity

No additional information available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have

endocrine disrupting properties according to REACH Article 57(f) or

Commission Delegated regulation (EU) 2017/2100 or Commission Regulation

(EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13. Disposal considerations

13.1. Waste treatment methods

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No data available

14. Transport information

14.1. UN number

ADR/RID: - IMDG: IATA:

14.2. UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

14.3. Transport hazard class(es)

ADR/RID: IMDG: IATA:

14.4. Packaging group

ADR/RID: IMDG: IATA:

14.5 Environmental hazards

ADR/RID: no IMDG: Marine pollutant: no IATA: no

14.6 Special precautions for user

Further information

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. Other information

Abbreviations and acronyms:

PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative

Sources of key data used: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information: None.

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product. If the product is used as a component in another product, this MSDS information may not be applicable.

End of document

Prepared by: MOLYCHEM (INDIA) For questions contact: MOLYCHEM

Office: Maker Tower 'E', 41-A2, 4th Floor, Above Maker Arcade,

Cuffe Parade, Mumbai 400 005 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: +91 22 2203 4442.

Email: info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co.,

Kulgaon, Badlapur (E), Dist.-Thane-421 503

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